Appendix H. Public Comment on Draft EIS and Responses

Copies of the HCP/EIS were sent out to numerous agencies, private organizations, and individuals soliciting comment. Part C of Chapter VI lists a number of these groups and individuals. In addition, the USFWS contacted U.S. Congressional representatives within the Karner blue butterfly's High Potential Range and provided copies of the documents to other federal agencies in Wisconsin. The USFWS published a notice announcing the availability of the incidental take permit application and draft HCP/EIS in the *Federal Register* on April 14, 1999 (Vol. 64, No. 71, pp. 18440-18442), and the availability of the Draft EIS was announced in the U.S. Environmental Protection Agency's *Federal Register* notice on April 16, 1999 (Vol. 64, No. 73, p. 18900). The USFWS's notice included information regarding the availability of the document on the World Wide Web, as well as hard copy. In response to these notices, the USFWS received five additional requests for copies of the documents.

This appendix summarizes public input gathered during the review of the Draft EIS. It includes information from public information meetings and written comments received by the USFWS. The Environmental Impact Statement, in conjunction with this Appendix, constitute the final EIS for the Service's proposed action.

Public Information Meetings

The Service and the DNR hosted three public information meetings on the draft HCP and EIS (Table H-1, below). These meetings allowed interested parties to identify any issues that may not have been addressed in developing the HCP and in evaluating the HCP's potential impacts. In addition to agency staff, approximately 38 people attended the three meetings.

Table H-1. HCP/EIS Information Meeting Dates, Locations and Attendance

Tuesday, May 11, 1999	Siren, Wisconsin	16 people
Wednesday, May 12, 1999	Black River Falls, Wisconsin	13 people
Thursday, May 13, 1999	Wisconsin Rapids, Wisconsin	9 people

Generally, the informational sessions and hearings lasted from 5:00 p.m. to 7:30 p.m. The number of people attending each session is indicated in Table H-1. USFWS and DNR personnel were available for presentations and questions at each meeting; staff were available to speak to all present during this period, as well as following the hearings. The relatively small attendance attests to the fact that the general public, as well as federal, state and local governmental bodies or agencies, have been kept informed of the Proposed Action and are comfortable with it. There were only two oral comments made during each of the three hearings, and these primarily reflected support for the HCP and the overall conservation approach.

Public Comment Period and Letters Received

In addition to the public hearings, interested citizens were invited to submit written comments to the USFWS during a 60-day public comment period. A total of seven individuals representing two federal agencies, one state agency, academia and private interests submitted comments. These letters are reproduced as Figures H-1 - H-7 (pages H-19 - H-32).

The USFWS and DNR reviewed these letters and prepared responses to the issues identified (Table H-2, pages H-3 - H-16). Comment letters were generally supportive of the HCP approach and identified some issues which merit further discussion. Minor technical errors outlined in these letters are acknowledged in Table H-2. Corrections to the text of the HCP will be completed by the DNR. It is important to note that these technical corrections are considered to be minor in nature and do not affect the USFWS's decision. These technical corrections, however, can be found in the letters reproduced in Figures H-1 - H-7.

Table H-2. Comments on the Draft HCP and EIS and Responses to those Comments

Author	Date	Comment	Response
N.C. Braker The Nature Conservancy	April 15, 1999	This plan represents a significant contribution to conservation for this species and many other species found in similar habitats.	The USFWS and DNR agree that the plan represents a significant contribution to conservation.
		The plan takes into consideration the needs of landowners, industrial users, and conservation interests in a comprehensive way; the plan allows for the participants to continue working together to refine and improve the conservation activities.	The USFWS and DNR agree that the plan considers the needs of the various interests identified; conservation agreements and an implementation oversight committee will allow the HCP partners to continue working together; the adaptive management approach included in the HCP allows for modifications and improvements.
S.A. Katovich, Ph.D. U.S.D.A. Forest Service	April 29, 1999	The overall approach of developing the habitat conservation plan should be commended as a very reasonable way of protecting and even enhancing Karner blue butterfly populations in the future.	The HCP was developed with the intent of maintaining habitat and butterfly populations through Wisconsin. Its focus on habitat is believed to be sound.
S.A. Katovich, Ph.D. U.S.D.A. Forest Service	April 29, 199	The effects of on-going gypsy moth control programs in Wisconsin may	Both the USFWS and the DNR recognize that the on-going gypsy moth

Author	Date	Comment	Response
Continued		impact the overall conservation plan. The insecticide *Bacillus thurigiensis* var. *kurstaki* (BT) can directly conflict with Karner blue butterfly management.	control programs in Wisconsin may impact Karner blue butterfly conservation. As such, gypsy moth infestation is treated as a changed circumstance under the USFWS "No Surprises" rule (see Table 2.23, page 177). Such changed circumstances can reasonably be expected to occur over the course of the permit period. As pointed out in this comment letter, gypsy moths will likely become much more pervasive in the future, especially in the Central Sands. If a need arises to undertake gypsy moth control measures that appear incompatible with Karner blue butterfly conservation, the USFWS and the DNR will work with the partners and other cooperators to address this concern.

Author	Date	Comment	Response
S.A. Katovich, Ph.D. U.S.D.A. Forest Service Continued	April 29, 1999	The HCP indicates that BT should not be applied within ½ mile of a Karner blue butterfly site. Depending on how "Karner blue butterfly site" is defined, the impact of this statement could overwhelm the ability of the Wisconsin Cooperative Gypsy Moth Program to deal with the gypsy moth. The USFWS is defining these sites as "sites that have the potential to support lupine."	The ½ mile guideline reflects current USFWS practice. "Karner blue butterfly site" in the context of the HCP refers to only those sites where Karner blue butterflies are known to occur. "Karner blue butterfly" site for the purposes of the Section 7 consultation between the USFWS and the Forest Service on the gypsy moth spray program does include "sites that have the potential to support lupine" because not all Karner blue butterfly sites in Wisconsin are known. The USFWS and Forest Service will address these issues during the formal Section 7 consultation process to start this year. This process is separate from the HCP process.
		The plan identifies alternatives to BT treatments. However, it should be made clear that BT is the preferred treatment alternative for several good reasons.	The USFWS and DNR agree that in many cases BT is the preferred alternative for gypsy moth control.
S.A. Katovich, Ph.D. U.S.D.A. Forest Service Continued	April 29, 1999	The Wisconsin Cooperative Gypsy Moth Program has committed to the national slow-the-spread strategy. Under this program, control efforts are	Both the USFWS and the DNR recognize that the on-going gypsy moth control programs in Wisconsin may impact Karner blue butterfly

Author	Date	Comment	Response
		concentrated in identified action zones. The Wisconsin action zone is located over much of the Central Sands region, prime habitat for the Karner blue butterfly. Conflicts between the HCP and gypsy moth control programs seem inevitable.	conservation. As such, gypsy moth infestation is treated as a changed circumstance under the USFWS "No Surprises" rule (see Table 2.23, page 177). Changed circumstances can reasonably be expected to occur over the course of the permit period. If/when more intensive gypsy moth control which would appear to be incompatible with Karner blue butterfly conservation on partner lands becomes necessary, the DNR and USFWS will work with the other cooperators to address this issue. The USFWS is planning to enter into a formal Section 7 consultation process with the Forest Service. During this process, conflicts between Karner blue butterfly conservation and the need for gypsy moth control will be addressed.
D. Andow, Ph.D. University of Minnesota	May 3, 1999	The focus on suitable habitat rather than individual butterflies or populations is essential for reducing the effort needed to preserve the species in Wisconsin.	The USFWS and DNR agree with this comment. The HCP should focus on habitat conservation.

Author	Date	Comment	Response
David Andow, Ph.D. University of Minnesota Continued	May 3, 1999	The designation of significant population areas and areas of conservation emphasis is critical for ensuring that the HCP is consistent with the draft federal Recovery Plan.	The identification of significant population areas and areas of conservation emphasis is consistent with the draft Recovery Plan; the significant population areas correspond closely to the viable populations and large viable populations identified in the draft plan; the areas of conservation emphasis include outlying Karner blue butterfly element occurrences and potential habitat and, therefore, encompass potentially unidentified Karner blue butterfly populations outside the significant population areas.
		The proposed HCP will probably be better for preserving the butterfly and limiting the costs of preservation than any of the other considered methods.	The HCP partners developed an HCP they felt could be cost-effectively implemented; other identified alternatives would likely cost more to implement.

Author	Date	Comment	Response
D. Andow, Ph.D. University of Minnesota Continued	May 3, 1999	The draft Recovery Plan uses a precise definition of site, but the HCP does not. Consequently it is uncertain exactly what is to be sampled.	The HCP effectiveness monitoring protocol in Appendix G provides a definition of site. Level I (habitat presence/absence) monitoring sites include forest stands up to 40 acres in size; Level II (butterfly presence/ absence) includes sites with at least 25 lupine plants or clumps of lupine at a density of 50 plants per acre or 25 plants per 200 meters of linear distance (ROW sites are limited to 250 meters in length); Level III (butterfly abundance) sites are the same as Level II sites.
		If monitoring of butterfly presence/ absence is conducted on only 200 sites per year and monitoring of relative abundance is conducted on only 80 sites per year, it is doubtful that statewide trends will be detected. Perhaps, as many as twice the number of sites would need to be sampled.	Published and unpublished work suggests the number of sites selected will be sufficient. There are 281 Karner blue butterfly element occurrences in Wisconsin. Given the fact that relative abundance surveys are conducted only on occupied sites, 80 sites is an adequate percentage of sites to survey in order to detect change.

Author	Date	Comment	Response
D. Andow, Ph.D. University of Minnesota Continued	May 3, 1999	A stratified method that samples the significant population areas and areas of conservation emphasis more intensively with a wider spatially extensive network of the best sites for relative abundance and the marginal sites for presence/absence would be a more efficient and sensitive basis for monitoring.	The USFWS and DNR are comfortable that the proposed strategy will detect any significant changes. In addition, the proposed stratified approach has been embraced by the HCP partners as one which can be implemented on their lands.
		There are a number of minor technical errors in section II.B.2 that have little bearing on the functioning of the HCP.	The USFWS and DNR agree with the suggested technical corrections.
D. Muench	May 26, 1999	The large size of the HCP/EIS is particularly surprising; the documents total 586 pages; they seem to include much more than necessary.	The documents were prepared to comply with the requirements of two federal laws (ESA, NEPA) and comparable state laws; as indicated in the "note to readers" in the front of Volume II, an effort was made to combine the documents required by all these laws into a single document to streamline the process and documents; the DNR and USFWS chose not to repeat in the EIS information already contained in the HCP.

Author	Date	Comment	Response
G.A. Birch Wisconsin DOT	June 4, 1999	The timing of highway ROW mowing should be corrected on page 89, second paragraph. In the same paragraph, the changes to timing will occur only on selected highways. This should be clarified.	The USFWS and DNR agree with these minor corrections; the changes are consistent with the DOT's conservation agreement.
		Page 236 should indicate that the DOT's conservation agreement will cover all state highways.	The USFWS and DNR agree with this minor correction; the change is consistent with the DOT's conservation agreement.
A.B. Swengel North American Butterfly Association	June 4, 1999	Positive aspects of this HCP include the extensive effort to make the process public through notices, mailings, a published directory of involved people, etc.	The USFWS and DNR agree with this comment; both agencies are committed to public involvement in decision-making.
		In general, implementation of this HCP will have no appreciable negative effect, but possibly an appreciable positive effect, on the status of the Karner blue butterfly in Wisconsin. If properly conducted and reasonably interpreted, the monitoring can result in effective "adaptive management."	The USFWS and DNR agree with these comments. The USFWS and DNR believe that an adaptive management approach is appropriate for conservation of Karner blue butterflies.
A.B. Swengel	June 4, 1999	The Karner blue butterfly is relatively	These observations and experiences are

Author	Date	Comment	Response
North American Butterfly Association Continued		tolerant of management type. The general land management approaches described in the application, regardless of the fine points of how they will be done or modified in the future, will be neutral or even favorable for the Karner blue butterfly.	consistent with the experience of USFWS and DNR personnel.
A.B. Swengel North American Butterfly Association Continued	June 4, 1999	The law, regulations and choices by USFWS personnel as to how to define and implement the law and regulations have foreclosed some options that would be both biologically and economically sound. Examples include: 1) an inability to recognize that the Karner blue butterfly is endangered in some states but is neither threatened nor endangered in Wisconsin, and 2) an unwillingness to distinguish between scales of take.	USFWS implementation of federal laws is guided by national and regional policies. These agency policies strive to provide for local flexibility, without creating inconsistency in implementation. The USFWS agrees that, under current law, it is not possible to recognize the differing status of discrete invertebrate populations. Thus, the USFWS must treat the Karner blue butterfly as endangered in Wisconsin, even though it is found in Wisconsin in greater numbers than it is in other states. The DNR and several partners have supported giving the USFWS the ability/flexibility to differentially list invertebrates during their ESA reauthorization activities. An effort was made in this HCP to examine take from a proactive conservation

Author	Date	Comment	Response
			approach, rather than a traditional regulatory approach. This HCP allows for "short-term" take for the sake of habitat maintenance.
A.B. Swengel North American Butterfly Association Continued	June 4, 1999	The legal basis for this process is the Karner blue butterfly (and other listed species), not plant communities and not ecosystems.	The federal ESA was the basis for preparation of the HCP. The ESA was established to protect endangered and threatened species *and* those ecosystems upon which they depend. In addition, several state laws provide the DNR with the ability to manage for non-game resources, including listed species, in the manner proposed (e.g., see discussion of legal framework in Chapters I and VI). It is well established that the most effective approach to invertebrate conservation is that which is based on habitat conservation. In addition, the approach used in the HCP was largely and appropriately partner driven to reflect the array of land management goals that various partners have in addition to conservation interests.
A.B. Swengel	June 4, 1999	No definitions are provided for the	The USFWS and DNR agree with the

Author	Date	Comment	Response
North American Butterfly Association Continued		differences between "artificial" and "natural" barrens. Artificial barrens may be as good, or better, as habitat than natural barrens. There is not a basis to prefer natural barrens over artificial barrens.	underlying premise of this comment (i.e. from the perspective of listed species conservation, there is not a basis to prefer one type over another). A distinction between natural and artificial is made in the HCP not for the purposes of distinguishing between the habitat value of the different types of barrens, but rather to distinguish between the differing management strategies applied to conservation lands ("natural") and ROWs ("artificial"). For example, attempts are often made to manage conservation lands with natural disturbance processes, whereas artificial barrens are maintained by active mowing, herbicide treatments, and other anthropogenic sources of disturbance. The discussion on pages 251-252 and elsewhere was intended to emphasize the value of some "artificial" communities for Karner blue butterflies.
A.B. Swengel North American Butterfly Association Continued	June 4, 1999	The HCP should acknowledge the already existing information on the effects of habitat management. There is a discussion of how management might be done in order to take account of the	The USFWS, the DNR and the HCP partners are quite familiar with the literature on Karner blue butterflies and land management. This published and unpublished literature, as well as the

Author	Date	Comment	Response
		Karner blue butterfly, but there is no presentation of scientific studies that have actually looked at how management has been observed to affect Karner blue butterfly occurrence and abundance.	experience of knowledgeable lepidopterists and land managers, served as the basis for the development of modifications to existing land management activities. A considerable effort was made by the partners to ensure that the effects of management were well understood before changes were proposed in order to consider the Karner blue butterfly and its habitat. The information was neither ignored nor omitted (e.g., several Swengel publications are cited in the documents).
A.B. Swengel North American Butterfly Association Continued	June 4, 1999	There is a lack of recognition for the importance of independent expert involvement in the development and oversight of this HCP. Very little effort has been devoted to ensuring the meaningful inclusion/influence of independent experts.	The USFWS and DNR respectfully disagree with this comment. Extensive efforts were made to include independent experts throughout the entire development and review process. For example, the research findings and input of numerous graduate school students were brought before the HCP team. Independent experts, including the author of this comment, were involved in the HCP biological team and the development of the HCP monitoring protocol. The public review draft was shared with several

Author	Date	Comment	Response
			entomologists at several institutions not involved, directly or indirectly, with the HCP.
A.B. Swengel North American Butterfly Association Continued	June 4, 1999	All people specified in the oversight process are affiliated either with regulation or being regulated.	The ESA clearly places responsibility for implementation of the law, including regulatory oversight, with the USFWS. State law conveys similar responsibility to the DNR. Both the DNR and the USFWS are committed to public involvement in their respective decision-making processes. The HCP calls for thirty percent of the members of the implementation oversight committee to be non-partner participants. Independent experts are included in this category. In addition, steps have been built into the HCP to ensure public involvement during HCP implementation (e.g., see Part H of Chapter II). Finally, HCP-related records, including annual reports and monitoring results, are subject to Wisconsin's open records law.
A.B. Swengel North American Butterfly	June 4, 1999	Implementation of the HCP has the potential to be neutral, or even	The DNR agrees that there is a potential for HCP implementation to harm the

Author	Date	Comment	Response
Association Continued		beneficial, to the phlox moth and frosted elfin. Implementation also has considerable potential to be harmful to these associated species. The application does not specify how level of risk from take will be made acceptable. The DNR should show more engagement with the already published literature on the observed effects of management on these species.	two identified species. That is why take of these species is *not* being authorized by the DNR. Even if these species occur on partner lands included in the HCP, the partners are not allowed to take these species in the course of their management activities. The effects of management activities on these, and other, species are reviewed in Appendix B and were additionally considered by biologists conducting the DNR's internal state consultation process.
S. Kamke U.S. EPA	June 15, 1999	The proposed statewide HCP is a unique approach to further establishing, enhancing, and promoting a sustainable landscape for the Karner blue butterfly.	Both the USFWS and the DNR recognize that the HCP proposes a unique approach to conservation.

Figure H-1. Letter from Nancy C. Braker, The Nature Conservancy

WISCONSIN CHAPTER
633 West Main Street
Madison, Wisconsin 53703

608/251-8140
608/251-8535 FAX

April 15, 1999

Lisa Mandell
Ecological Services Operations
U.S. Fish and Wildlife Service
1 Federal Drive
Fort Snelling, MN 55111-0456

Dear Ms. Mandell,

We are writing in support of the proposed Karner Blue Butterfly Habitat Conservation Plan and the associated Environmental Impact Statement. We have been active participants in the development of the plan and EIS, and strongly endorse the process and the end product.

This plan represents a significant contribution to conservation for this species and many other species found in similar habitats.

The plan takes into consideration the needs of landowners, industrial users, and conservation interests in a comprehensive way. By promoting a partnership approach, the plan allows for the participants to continue working together to refine and improve the conservation activities.

We believe that this plan provides for conservation in a significant way by taking a broad approach and addressing the needs of multiple landowner types. We strongly encourage the approval of the HCP and the issuance of the incidental take permit.

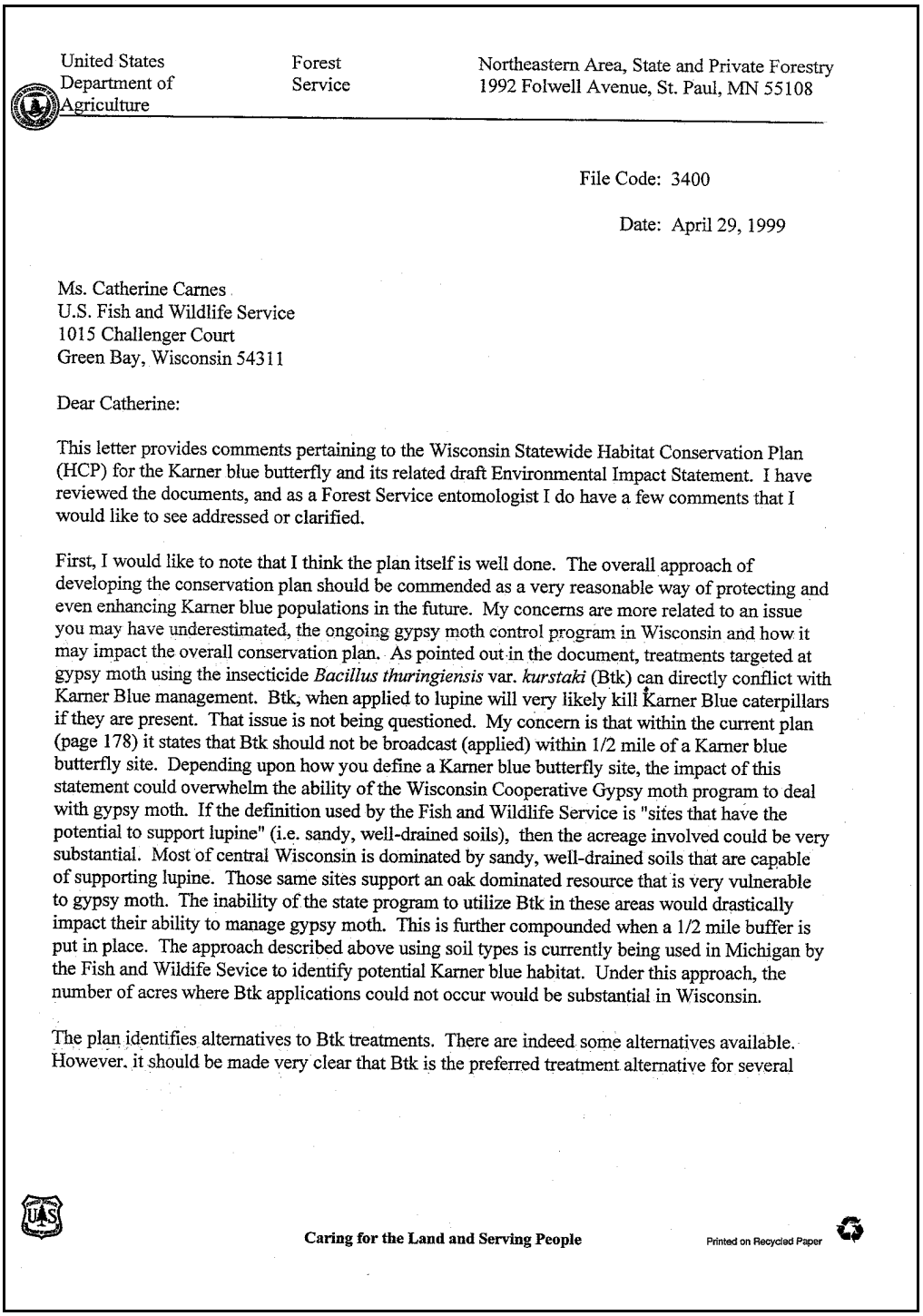
Please feel free to contact us for more information or with any questions.

Sincerely,

Nancy C. Braker
Director of Science and Stewardship

cc: GBFO
WDNR

Figure H-2. Letter from Steven A. Katovich, U.S.D.A. Forest Service



United States Department of Agriculture | Forest Service | Northeastern Area, State and Private Forestry
1992 Folwell Avenue, St. Paul, MN 55108

File Code: 3400

Date: April 29, 1999

Ms. Catherine Carnes
U.S. Fish and Wildlife Service
1015 Challenger Court
Green Bay, Wisconsin 54311

Dear Catherine:

This letter provides comments pertaining to the Wisconsin Statewide Habitat Conservation Plan (HCP) for the Karner blue butterfly and its related draft Environmental Impact Statement. I have reviewed the documents, and as a Forest Service entomologist I do have a few comments that I would like to see addressed or clarified.

First, I would like to note that I think the plan itself is well done. The overall approach of developing the conservation plan should be commended as a very reasonable way of protecting and even enhancing Karner blue populations in the future. My concerns are more related to an issue you may have underestimated, the ongoing gypsy moth control program in Wisconsin and how it may impact the overall conservation plan. As pointed out in the document, treatments targeted at gypsy moth using the insecticide *Bacillus thuringiensis* var. *kurstaki* (Btk) can directly conflict with Karner Blue management. Btk, when applied to lupine will very likely kill Karner Blue caterpillars if they are present. That issue is not being questioned. My concern is that within the current plan (page 178) it states that Btk should not be broadcast (applied) within 1/2 mile of a Karner blue butterfly site. Depending upon how you define a Karner blue butterfly site, the impact of this statement could overwhelm the ability of the Wisconsin Cooperative Gypsy moth program to deal with gypsy moth. If the definition used by the Fish and Wildlife Service is "sites that have the potential to support lupine" (i.e. sandy, well-drained soils), then the acreage involved could be very substantial. Most of central Wisconsin is dominated by sandy, well-drained soils that are capable of supporting lupine. Those same sites support an oak dominated resource that is very vulnerable to gypsy moth. The inability of the state program to utilize Btk in these areas would drastically impact their ability to manage gypsy moth. This is further compounded when a 1/2 mile buffer is put in place. The approach described above using soil types is currently being used in Michigan by the Fish and Wildife Sevice to identify potential Karner blue habitat. Under this approach, the number of acres where Btk applications could not occur would be substantial in Wisconsin.

The plan identifies alternatives to Btk treatments. There are indeed some alternatives available. However, it should be made very clear that Btk is the preferred treatment alternative for several

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Figure H-2. Letter from S.A. Katovich, U.S.D.A. Forest Service, Cont.

good reasons. Btk is quite effective at killing gypsy moth caterpillars, it's economical, and safe for use around humans. Gypchek (the gypsy moth virus) is one potential alternative but it has some serious limitations. First, Gypchek is viewed more as a treatment for reducing outbreak levels of gypsy moth. We do not have good evidence that it works at killing gypsy moth caterpillars present in low numbers, the situation currently found in Wisconsin. In many trials it has failed much more frequently than has Btk. This has occurred at both low level and high level gypsy moth populations. Second, production of Gypchek is very limited, only 5,000 acre equivalents have been produced annually by the Forest Service over the past few years. Gypchek is not produced commercially, the Forest Service is capable of only limited production. Those 5,000 acres spread over the northeastern U.S. may not leave a lot of material for Wisconsin. If Gypchek is going to be required over a large number of acres then the Fish and Wildlife Service along with the Wisconsin Gypsy moth program needs to become active, along with the Forest Service, in finding a commercial producer of the product. I might add that the Forest Service has tried to do this in the past, however, the various producers have decided not to proceed after a couple of years of working with Gypchek.

The other treatment alternative your plan listed was application of pheromone flakes. Flakes have been used in Wisconsin, but not on a large scale. Application of pheromone flakes is only appropriate in specific situations, isolated low-level populations. This limitation greatly curtails the number of acres where pheromone flakes can be applied.

The Wisconsin Cooperative Gypsy moth program has committed to a national management strategy called Slow-The-Spread. This is a Forest Service sponsored program. In that program, an action zone is identified where control activities will be concentrated. At this time, the action zone in Wisconsin sits over much of the Central Sands region of the state, prime habitat for the Karner blue. The overall goal of the program is to significantly reduce the buildup and spread of gypsy to the west across Wisconsin and into states such as Iowa and Minnesota. Conflicts between the two programs appear inevitable.

I might suggest that the definition for a "Karner blue butterfly site" be clearly stated. Well delineated, occupied habitat can be avoided. However, reliance on using soil types to identify habitat will likely lead to conflict between the programs. If soils will be relied upon in the definition, surveys should be conducted that can better refine which specific soil types are involved. Further refinements, perhaps using the Wisconsin habitat type system developed by John Kotar and others at the University of Wisconsin may be beneficial.

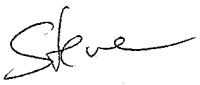
My hope is that this letter helps initiate some dialogue on this subject. Gypsy moth will not simply disappear from Wisconsin. Rather, it is likely to become much more pervasive in the future, especially in the Central Sands. Further, it should be made quite clear that large scale alternatives to Btk are not readily available. If Btk applications, as well as other insecticides used in controlling gypsy moth (diflubenzuron and carbaryl) threaten the long term viability or Karner blue we all need become more involved finding some long-term solutions.

Figure continues on next page.

Figure H-2. Letter from S.A. Katovich, U.S.D.A. Forest Service, Cont.

Thank you for the opportunity to comment. If you would like to discuss these comments on the phone please feel free to call me at (651) 649-5264.

Sincerely,



STEVEN A. KATOVICH, Ph.D.
Forest Entomologist
Forest Health Protection

cc:
Charles Wooley, USF&W Fort Snelling
E. Chapman, WDATCP
D. Schumacher, WDATCP
G. Hertel, USFS Radnor
N. Schneeberger, USFS Radnor
D. Leonard, USFS Asheville
A. Prey, WI DNR
A. Diss, WI DNR
FH&M NA, Radnor

Figure H-3. Letter from David Andow, University of Minnesota

UNIVERSITY OF MINNESOTA

Twin Cities Campus

Department of Entomology
College of Agricultural, Food, and Environmental Sciences

219 Hodson Hall
1980 Folwell Avenue
St. Paul, MN 55108-6125
612-624-3636
Fax: 612-625-5299

May 3, 1999

Regional Director
U.S. Fish and Wildlife Service
Ecological Services Operations
1 Federal Drive
Fort Snelling, MN 55111-4056

Re: Wisconsin Statewide Habitat Conservation Plan for the Karner Blue Butterfly

Dear Regional Director:

I am taking this opportunity to provide comments on the proposed Wisconsin Statewide Habitat Conservation Plan (HCP) for the Karner Blue Butterfly, which I received about 10 days ago. I am an insect ecologist at the University of Minnesota, and presently have the pleasure of serving as the Chair of the Karner blue butterfly Recovery Planning Team for the U.S. Fish and Wildlife Service.

I am supportive of the fundamental approach used in the HCP. The focus on suitable habitat rather than individual butterflies or populations is essential for reducing the effort needed to preserve the species in Wisconsin. Moreover, the designation of Significant Population Areas (SPA) and Areas of Conservation Emphasis (ACE) (Figure 2.11) is critical for ensuring that the HCP is consistent with the Draft Recovery Plan. The proposed HCP will probably be better for preserving the butterfly and limiting the costs of preservation than any of the other considered methods.

My main concern with the HCP relates to Section II.D.2.b) Effectiveness Monitoring. The Draft Recovery Plan (DRP) uses a precise definition of site, but the HCP does not. Consequently, it is not certain exactly what is to be sampled. The DRP site is usually small in area, often on the order of a few acres. If the HCP site is similarly sized, then there could be tens of thousands of these sites in Wisconsin. Although the HCP indicates that unpublished work by Rasmussen and Boyce (p. 103) justifies the sampling methods, I am skeptical that their results should apply uniformly over all of Wisconsin. If monitoring of butterfly presence absence is conducted on only 200 sites a year and monitoring of relative abundance is conducted on only 80 sites a year for all of the shifting mosaic and long-term potential habitat, I am doubtful that statewide trends will be detected. I think that a stratified method that samples the SPA's and ACE's more intensively with a wider spatially extensive network of the best sites for relative abundance and the marginal sites for presence/absence would be a more efficient and

GBFO
WDNR

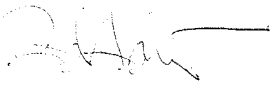
Figure H-3. Letter from D. Andow, University of Minnesota, Cont.

sensitive basis for monitoring. In addition, perhaps as many as twice the number of sites would need to be sampled.

All of my other comments are factual issues, that have little bearing on the functioning of the HCP because I recognize that many of the parts of the plan reflect important compromises. It will be necessary to revise Section II.B.2 Elements of Karner blue butterfly ecology to reflect findings in Lane, C.P., 1999, Benefits of heterogeneous habitat: Oviposition preference and immature performance of *Lycaeides melissa samuelis* Nabokov (Lepidoptera: Lycaenidae), Ph.D. Thesis, University of Minnesota, 185pp. Specifically, Lane (1999) constructs a partial life table (p.46, line 23ff), and described pupation sites in Wisconsin (p.47, line 3ff). Lane (1999) can be added to the references cited throughout much of this section. The fecundity estimates on page 46, 2nd line from bottom, are not that well known, and "may" should be inserted before "vary." Otherwise, the family name of lupine is Papilionaceae not Leguminosae (p. 48, line 23), Boyonowski is mis-spelled on page 49, line 7.

I appreciate the opportunity to provide comments for this important HCP.

Sincerely,



David Andow
Professor
Insect Ecology

Figure H-4. Letter from David Muench

May 26, 1999

David Muench
1816 N. Douglas Street
Appleton, WI 54914

Field Supervisor
U.S. Fish and Wildlife Service
1015 Challenger Court
Green Bay, WI 54311

To Whom It May Concern;

I don't know if you have received any flak about it, but I was particularly surprised at the large size of the EIS for the Karner Blue Butterfly. The two documents totaled 586 pages. This, in my opinion, is very extreme, and a waste of natural resources. I don't think it helps our cause when we waste so much. As I looked through this and other documents like it, government agencies always seem to go overboard and write much more than necessary, and it is a bad reflection on the government as a whole.

Please try to reduce the amount of paperwork in all you produce. It turns any possible reader off to see such a size of document.

Sincerely,

David Muench

David Muench

Figure H-5. Letter from Gary A. Birch, Wisconsin DOT

Wisconsin Department of Transportation

Division of Transportation Infrastructure Development
Bureau of Environment
4802 Sheboygan Avenue, Room 451
P.O. Box 7965
Madison, WI 53707-7965
Telephone: (608) 266-0099
Facsimile (FAX): (608) 266-7818

June 4, 1999

Ms. Lisa Mandell
U.S. Fish and Wildlife Service
Ecological Services Operations
1 Federal Drive
Fort Snelling, MN 55111-4056

RE: COMMENTS FOR THE KARNER BLUE BUTTERFLY HABITAT CONSERVATION PLAN

Dear Ms. Mandell:

The Wisconsin Department of Transportation is a full partner of the Karner Blue butterfly Habitat Conservation Plan (HCP). WisDOT has had numerous opportunities to comment on the plan and EIS at various stages of its development over the last three years. With this plan, we step into the "quiet revolution" for accommodating endangered species in Wisconsin while allowing for necessary highway work.

Our comments are limited to the following:

Page 89, second paragraph, last sentence: Sentence should read: "Mowing beyond fifteen feet of the shoulder currently occurs from July 15 to April but will change as a result of the HCP and will occur only during October through March on selected highways."

Page 236, second paragraph under "Note": WisDOT's conservation agreement would cover road construction and maintenance for all state trunk highways, not just those selected for butterfly accommodation. This is an important provision, agreed upon by WDNR and WisDOT, that must be included in the plan.

Thank you for the opportunity to provide comments.

Sincerely,

Gary A. Birch

Gary A. Birch
Environmental Policy Analyst

Figure H-6. Letter from Ann B. Swengel, North American Butterfly Association

NORTH AMERICAN BUTTERFLY ASSOCIATION
4 Delaware Road, Morristown, NJ 07960 tel. 973-285-0907 fax 973-285-0936

909 Birch Street
Baraboo, WI 53913
4 June 1999

Attention: Lisa Mandell
U.S. Fish and Wildlife Service
Ecological Services Operations
1 Federal Drive
Fort Snelling, MN 55111-4056

George Meyer
Department of Natural Resources
P.O. Box 7921
Madison, WI 53707

Dear Ms. Mandell and Mr. Meyer:

These are my comments on the environmental impact statement and environmental review of the Wisconsin Statewide Karner Blue Habitat Conservation Plan (HCP) application, and proposed authorization to take state-listed endangered and threatened species incidental to the application and administration of this conservation plan.

My qualifications to make these comments are based on my standing as an independent lepidopterist who has conducted extensive field research in the midwestern U.S.A. with my husband and co-researcher, Scott Swengel. Although we have received some small grants that have partially funded some of this research, no grant has fully funded all the actual work associated with what it was funding, much less was adequate as a means of making a living. Our research has never been affiliated with any institution. The Karner Blue and associated Lepidoptera species in Karner Blue habitat in Wisconsin have been a major subject of our research, which has been published in numerous peer-reviewed, refereed articles at a variety of reputable scientific journals (see list at end of these comments) as well as in some non-technical articles for the lay public. I am also a vice president of the North American Butterfly Association (NABA) and coordinator of NABA's Program for Butterfly Gardens & Habitats.

I have been involved in this HCP since its inception as a public process, and participated as a "participant" (not a "stakeholder"). I have contributed expertise in the development of the biological aspects of this application (e.g., biology of Karner Blue and associated species, the monitoring protocol) and provided comments on previous drafts of the HCP application. I have also read several representative Conservation Agreements signed by the partners.

Positive aspects of this HCP include the extensive effort to make the process public through notices, mailings, a published directory of involved people, etc. When I have requested an item from HCP-associated personnel, I have usually gotten it (when not, it was an inconsequential oversight). I have been impressed that the partners who represent economic land uses (timber products, rights-of-way, etc.) have been sincere and dedicated to a positive outcome for Karner Blues and this HCP process.

Figure H-6. Letter from A.B. Swengel, Cont.

In general, I expect that implementation of this HCP will have no appreciable negative effect, but possibly an appreciable positive effect, on the status of the Karner Blue in Wisconsin. The presentation of the biology of the Karner Blue is sound, and the proposed monitoring process is scientifically acceptable. If properly conducted and reasonably interpreted, I believe that the monitoring can result in effective "adaptive management" that will be favorable for the Karner Blue. Since the Karner Blue is – in my observation, experience, and scholarship – *relatively* tolerant of management type, I expect the general land management approaches described in the application, regardless of the fine points of how they will be done or modified in the future, will be neutral or even favorable for the Karner Blue.

I also have concerns about this HCP. The law, regulations, and *choices* by U.S. Fish & Wildlife Service personnel as to how to define and implement the law and regulations have foreclosed some options that would be both biologically and economically sound. Examples include:

- an inability to recognize that the Karner Blue is endangered in some states but is neither threatened nor endangered in Wisconsin, and
- an unwillingness to distinguish between scales (and degree of hypotheticalness) of take. Instead, all possible takes have been lumped, whether the take is major and obvious (wholesale destruction of Karner Blues from burning or bulldozing, with obvious decline apparent in that generation in that site), or the take is inconsequential and possibly non-existent, as when a mowing machine drives a single pass over habitat occupied by the Karner Blue (with no apparent decline, or even an apparent increase, in adult Karner numbers in that site in that generation).

I have also been concerned about a vague definition and agenda regarding ecosystem conservation and management. The legal basis for this process is the Karner Blue (and other listed species) – not plant communities (even not wild lupine) and not ecosystems (which are usually defined as dominant plant cover and structure types, hence plant communities). Obviously, a necessary (but not sufficient) prerequisite for the existence of Karner Blues is the consistent availability of enough suitable habitat to support Karner Blue populations. However, it's clear in this HCP application that suitable habitats and suitable "disturbances" are not evaluated by the same objective criteria. For example, rights-of-way are consistently termed "artificial barrens", even though they fit the glossary definition of a barrens and an ecosystem. No definitions are provided for the difference between "artificial" and "natural" barrens. This is not semantic hair-splitting. Based on the presence and size of populations of listed animal species that I study, such "artificial" barrens may be as good, or better, as habitat than "natural" barrens, which I will define here (as I believe is implied in the application) as a barrens plant community in conservation ownership and management as typically practiced today. From the point of view of these animals – and it is listed species, not plant communities, which is the legal basis for this process – there isn't a basis to prefer the "natural" over the "artificial" barrens, and in fact, these species may be better off with the "artificial" barrens, or with the "natural" barrens being redefined to include those favorable characteristics found in the "artificial" barrens.

I would also have more faith in the proposed process of "adaptive management" for the Karner Blue if the HCP application had acknowledged the already existing information on the effects of habitat management (burning, mowing, etc.) on the Karner Blue. Instead, I find this subject

Figure H-6. Letter from A.B. Swengel, Cont.

notably omitted. There is discussion of how managements might be done in order to take account of the Karner Blue's biology, but there is no presentation of scientific studies that have actually looked already at how habitat management has been observed to affect Karner Blue occurrence and abundance. Besides a number of Swengel publications, such information is also available, sometimes in more anecdotal but still relevant form, from other researchers and other states (e.g., the Saratoga Airport in New York).

My strongest concern is the lack of recognition for the importance of independent expert involvement in the development and oversight of this HCP. The applicants, including the Department of Natural Resources (DNR) and The Nature Conservancy (TNC), are "stakeholders" and therefore have a socioeconomic and/or political stake in the outcome, independent of consequences for the Karner Blue and other non-human species in Karner Blue habitat. USFWS, as the regulator, also has a history to defend and a "stake" in the process "working". Likewise, members of the Karner Blue Recovery Team (KBRT), and members of non-profit environmental organizations (NPEO), have a "stake" in their policies and agendas and stances. Very little effort has been devoted to insuring the meaningful inclusion (i.e., influence) of independent experts who are not employed or receiving livelihood-level funding, or seeking such in the future, from these sectors having a "stake" in the HCP. An outcome that pleases those involved in regulating or getting regulated is not the same as having an outcome that serves the interest of the Karner Blue, much less the state- and/or federal-listed associated species.

I do not fault the partners associated with economic uses of the landscape for this. Their interest is to get a permit, which is a sociopolitical (not scientific) process, so that they can get on with their economic work.

I am particularly concerned that all people specified in the oversight process are affiliated either with regulation (USFWS, KBRT, and NPEO) or being regulated (partners, including DNR and TNC). It would be highly desirable to include representatives from the lepidopterological community who are not formally affiliated with either the regulators or the regulated. All people have biases and "stakes", but independent representatives from the academic and scientific community would have biases unrelated to the regulatory and policy aspects of this process.

There's a reason, of course, why so few independent people are involved. There isn't an economic incentive. Nearly all people actively involved in the HCP were there because it was their job, and employers make it a job assignment when they have a "stake" in it. No one seems to have a budget to make this a job assignment for independent experts from the academic and scientific communities. Yet it would seem they would be the most important people to be involved, if the point of the HCP is not merely to arrive at a socioeconomic and political resolution that pleases or assuages affected sectors, but also a scientifically sound resolution that produces a good outcome for the Karner Blue and associated species.

All of this said, I will now present my comments on federally or state-listed associated species, as relevant to this HCP application. In general, I agree with how this application categorizes these species as to whether they are generally unaffected by the HCP, generally favored by the HCP, or (Table 5.3, page 321) may experience an unacceptable level or risk of take. In that last category,

Figure H-6. Letter from A.B. Swengel, Cont.

the species of specific concern to me which I have particular expertise on are the Phlox Moth and Frosted Elfin. Implementation of the HCP has the potential to be neutral, or even beneficial, to these species. But it also has considerable potential to be harmful to these associated species, since the Karner Blue is both relatively tolerant of habitat management and different in its responses to habitat management compared to these species.

However, since this application does not specify how that level or risk of take will be made to be acceptable (i.e., negligible) for these species, I cannot tell whether the HCP will be helpful or harmful to them. It all rests on what the DNR recommends, and then portrays (based on whatever monitoring it specifies and/or conducts) as the outcome resulting from implementation of these recommendations. I await further information before I can evaluate this aspect of the HCP. It is not possible to provide this evaluation now.

I would have more confidence about the outcome for these associated species if the DNR (as lead author of the HCP application) showed

- more engagement with the already existing scientific literature on the observed (not theoretical) effects of habitat management on the Karner Blue (discussed above) and these associated Lepidoptera species.
- more inclusion of independent outside experts on these habitat management issues. As I understand it, the document referred to as Karner Blue Technical Team (1998) on p. 300 is the document "Wildlife Management Guidelines for the Karner Blue Butterfly" reprinted starting on page F-9. I have never been able to determine who the people are/were on this "technical team", but from what I've understood about this and previous version(s) of this document, it is primarily an "in-house" (DNR) document.
- more interest in evaluating sites (habitat patches, or ecosystems) based on the more objective criterion of what biota are present (which species of flora and fauna, and in what abundance, and in what trend), rather than applying terms about "artificial" and "natural" barrens based on cultural and aesthetic feelings about the historical and current land managements occurring in those sites (discussed above).

Please take this letter as notice that I wish to receive all public document that are available via mail that relate to the implementation and monitoring of this HCP, related both to the Karner Blue and associated species.

Thank you for your attention to my comments. If you have any questions about them, please feel free to contact me. As always, I remain gladly willing to continue providing my expertise on the biology, management, and conservation of these Lepidoptera species at no charge.

Sincerely,

Ann B. Swengel

Ann B. Swengel

cc: Cathy Bleser, Stan Druckenmiller, Kathy Kirk, Dave Lentz, Sumner Matteson, all of DNR
Su Borkin

Figure H-6. Letter from A.B. Swengel, Cont.

Peer-reviewed Publications Related to Lepidoptera

Swengel, A.B. 1990. Monitoring butterfly populations using the Fourth of July Butterfly Count. *American Midland Naturalist* 124: 395-406.

Swengel, A.B. 1995. Observations of spring larvae of *Lycaeides melissa samuelis* (Lepidoptera: Lycaenidae) in central Wisconsin. *Great Lakes Entomologist* 28: 155-170.

Swengel, A.B. 1995. Population fluctuations of the monarch (*Danaus plexippus*) in the 4th of July Butterfly Count 1977-1994. *American Midland Naturalist* 134: 205-214.

Swengel, A.B. 1996. Effects of fire and hay management on abundance of prairie butterflies. *Biological Conservation* 76: 73-85.

Swengel, A.B. 1996. Observations of *Incisalia irus* (Lepidoptera: Lycaenidae) in central Wisconsin 1988-95. *Great Lakes Entomologist* 29: 47-62.

Swengel, A.B. 1997. Habitat associations of sympatric violet-feeding fritillaries (*Euptoieta, Speyeria, Boloria*) (Lepidoptera: Nymphalidae) in tallgrass prairie. *Great Lakes Entomologist* 30: 1-18.

Swengel, A.B. 1998. Comparisons of butterfly richness and abundance measures in prairie and barrens. *Biodiversity and Conservation* 7: 1639-1659.

Swengel, A.B. 1998. Effects of management on butterfly abundance in tallgrass prairie and pine barrens. *Biological Conservation* 83: 77-89.

Swengel, A.B., and S.R. Swengel. 1995. Conservation Opportunities for the Tallgrass Prairie Butterfly Community. Pp. 213-215 in *Our Natural Heritage*, G. Ferris, chief editor. National Biological Survey, Washington, D.C.

Swengel, A.B., and S.R. Swengel. 1996. Factors affecting abundance of adult Karner Blues (*Lycaeides melissa samuelis*) (Lepidoptera: Lycaenidae) in Wisconsin surveys. *Great Lakes Entomologist* 29:93-105.

Swengel, A.B., and S.R. Swengel 1997. Co-occurrence of prairie and barrens butterflies: applications to ecosystem conservation. *Journal of Insect Conservation* 1:131-144.

Swengel, A.B., and S.R. Swengel. 1998. Density-dependent and -independent behaviors of the adult Karner Blue (*Lycaeides melissa samuelis*) (Lepidoptera: Lycaenidae). *Great Lakes Entomologist* 31: 59-72.

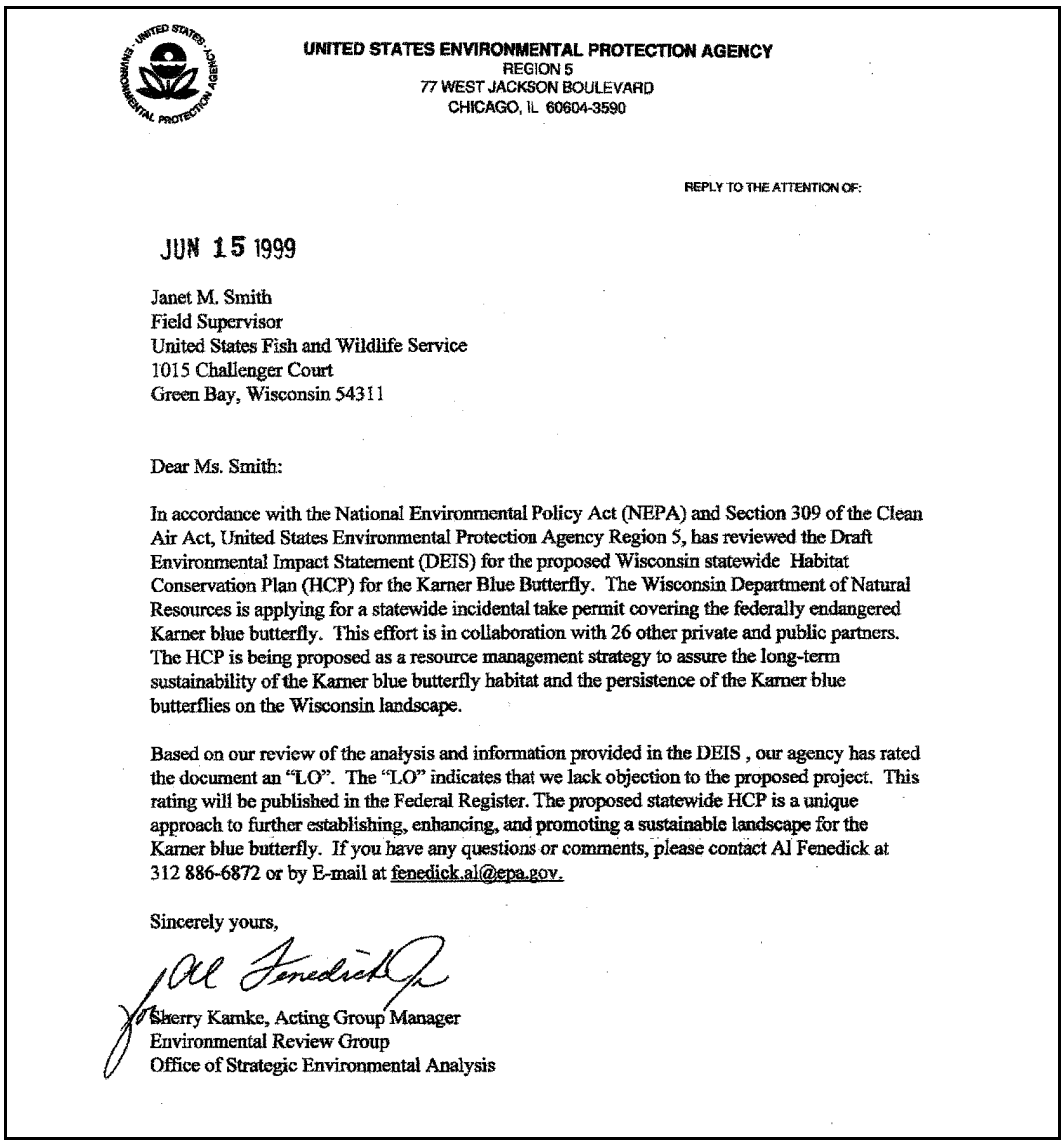
Swengel, A.B., and S.R. Swengel. 1998. Tallgrass prairie butterflies and birds. In *Status and Trends of Biological Resources*, ed. M. J. Mac, P. A. Opler, C. E. Puckett Haecker and P. D. Doran. U.S. Geological Survey, Washington, D.C. (in press).

Swengel, A.B., and S.R. Swengel. 1999. Observations on *Schinia indiana* and *Schinia lucens* in the midwestern United States (Lepidoptera: Noctuidae). *Holarctic Lepidoptera* 6: 11-21 (in press).

Swengel, A.B., and S.R. Swengel. 1999. Timing of Karner Blue (Lepidoptera: Lycaenidae) larvae in spring and adults in spring and summer in Wisconsin during 1991-98. *Great Lakes Entomologist* 32 (1) (in press).

Swengel, S.R., and A.B. Swengel. 1999. Correlations in abundance of grassland songbirds and prairie butterflies. *Biological Conservation* 90:1-11 (in press).

Figure H-7. Letter from Sherry Kamke, United States Environmental Protection Agency



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

JUN 15 1999

Janet M. Smith
Field Supervisor
United States Fish and Wildlife Service
1015 Challenger Court
Green Bay, Wisconsin 54311

Dear Ms. Smith:

In accordance with the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, United States Environmental Protection Agency Region 5, has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed Wisconsin statewide Habitat Conservation Plan (HCP) for the Karner Blue Butterfly. The Wisconsin Department of Natural Resources is applying for a statewide incidental take permit covering the federally endangered Karner blue butterfly. This effort is in collaboration with 26 other private and public partners. The HCP is being proposed as a resource management strategy to assure the long-term sustainability of the Karner blue butterfly habitat and the persistence of the Karner blue butterflies on the Wisconsin landscape.

Based on our review of the analysis and information provided in the DEIS , our agency has rated the document an "LO". The "LO" indicates that we lack objection to the proposed project. This rating will be published in the Federal Register. The proposed statewide HCP is a unique approach to further establishing, enhancing, and promoting a sustainable landscape for the Karner blue butterfly. If you have any questions or comments, please contact Al Fenedick at 312 886-6872 or by E-mail at fenedick.al@epa.gov.

Sincerely yours,

Al Fenedick

Sherry Kamke, Acting Group Manager
Environmental Review Group
Office of Strategic Environmental Analysis